This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-26. (Canceled)

27-39. (Withdrawn)

40-43, (Canceled)

44. (New) An analytical method, comprising:

(a) providing a tissue array comprising a plurality of tissue sections;

(b) contacting the tissue array with a sample containing a first ligand that is linked to a first semiconductor nanocrystal before, during or after the contacting, whereby the first ligand binds to a first antiligand of at least one of the tissue sections to form a first complex;

(c) optionally, removing unbound ligand from the tissue array; and

(d) detecting and, optionally, quantifying the presence in the first complex of the first semiconductor nanocrystal, wherein detection of first complex is an indication that the tissue section at which the first complex formed contains the first antiligand.

45. (New) The analytical method of claim 44, wherein the plurality of tissue sections are located on a solid support at spatially encoded locations so the location at which the first complex is formed provides an indication of the identity of the tissue specimen at that location.

46. (New) The analytical method of claim 45, wherein the plurality of tissue sections are from a single individual.

47. (New) The analytical method of claim 45, wherein the plurality of tissue sections are from different individuals.

48. (New) The analytical method of claim 48, wherein the plurality of tissue sections are from the same type of tissue from each of the different individuals.

49. (New) The analytical method of claim 47, wherein the different individuals share a common disease and the plurality of tissue sections are obtained from diseased tissue associated with the disease.

50. (New) The analytical method of claim 49, further comprising determining at which of the locations of the array the first complex is formed to identify which tissue sections contain the first antiligand.

49. (New) The analytical method of claim 47, wherein the plurality of tissue sections are from different types of tissue.

50. (New) The analytical method of claim 44, wherein

the sample also contains a second ligand that (i) specifically binds to a second antiligand that differs from the first antiligand and (ii) is linked to a second semiconductor nanocrystal that is detectably distinct from the first semiconductor nanocrystal, whereby during contacting the second ligand binds to second antiligand of at least one of the tissue sections to form a second complex; and

detecting comprises detecting and, optionally, quantifying the presence in the second complex of the second ligand, wherein detection of the second complex is an indication that the tissue section at which the second complex formed contains the second antiligand.

51. (New) The analytical method of claim 50, wherein the tissue array comprises tissue sections from a plurality of different individuals and the method further comprises determining the relative prevalence of binding of the first and second ligands to the plurality of tissue samples.

52. (New) The analytical method of claim 44, wherein the first ligand is selected from the group consisting of antibodies, proteins, aptamers and nucleic acid probes.

53. (New) The analytical method of claim 44, wherein the first antiligand is selected from the group consisting of proteins, nucleic acids, oligosaccharides, fatty acids and lectins.

54. (New) The analytical method of claim 44, wherein the first ligand and first semiconductor nanocrystal are linked by a linker that comprises two members of a binding pair, a first member attached to the first ligand and a second member attached to the first semiconductor nanocrystal.

55. (New) The analytical method of claim 44, wherein the first ligand is linked to the first semiconductor nanocrystal prior to the contacting step.

56. (New) The analytical method of claim 50, wherein the second ligand is linked to the second semiconductor nanocrystal prior to the contacting step.

56. (New) The analytical method of claim 44, wherein the first ligand is linked to the first semiconductor nanocrystal after the contacting step.

57. (New) The analytical method of claim 50, wherein the second ligand is linked to the second semiconductor nanocrystal after the contacting step.